

TINA TAVIZI

Curriculum Vitae

Mobile: +98 (912) 535 93 79

Email: Tina_tavizi@aut.ac.ir, tavizi.tina@gmail.com

Birth Date: March 22, 1987

Research Interests

- Software Engineering, Programming Languages, Automated software verification and formal methods, Software Security (Secure software design and development lifecycle)
- Secure Cloud and Distributed Computing
- Network or Host Intrusion Detection and Prevention System
- Application (Web/Desktop) Security Analysis and Penetration Testing
- Project Management, entrepreneurship, startups

Education

- **Amirkabir University of Technology, Tehran, Iran. (Sept. 2012 - Now)**

Ph.D. in Computer Engineering/Information Technology/Information Security.

Dissertation Proposed Title: **Security Checking of Systems Modeled with UML.**

Supervisor: Dr. Mehdi Shajari, Dr. Mehdi Dehghan Takht Fooladi.

GPA of passed courses: 17.77/ 20.00.

- **Amirkabir University of Technology, Tehran, Iran. (Sept. 2009 - Feb. 2012)**

M.Sc. in Information Technology/Information Security.

Dissertation Title: **An Architecture for Applying UCON (Usage CONtrol) Model in Cloud Environments.**

Supervisor: Dr. Mehdi Shajari.

GPA: 16.76/ 20.00.

- **University of Tehran, Tehran, Iran. (Sept. 2005 – Sept. 2009)**

B.Sc. in Computer Science.

B.Sc. Dissertation: Analyze, Design, Implementation and test of a website for holding scientific conferences.

Dissertation Advisor: Ebrahim Naghibzadeh mashayekh.

GPA: 16.45/ 20.00.

Work Experience

- Penetration Testing Projects
 - Saman bank, Sarmayeh bank, Social Security Organization, Tosan (Negin Software Development Co.), Mahan Airline, Tehran Municipality, Hamrah-e-Avval (Mobile Telecommunication Company of Iran), Mahan Airline, etc.
- Iran's Telecommunication Research Center (ITRC): Head Researcher
 - Design, Implementation and testing of Network Intrusion Detection and Prevention System (NIDPS),
 - Designing Government Cloud,
 - Comprehensive Research on Cloud Security Issues
- Amirkabir University Information and communications technology Research Center (ICTRC): Project Manager
 - IP Multimedia Subsystem (IMS) Security
- Project Management, PMO Management
 - Project Server 2013, Project Professional 2013 in Mahan Airline.
- MAGFA (IT Development Center), Security Consultant
 - Web Applications and network security
- Pars Processing Pioneers, Security Analyst
 - Web and desktop applications security
- Academic Protection and Awareness Professional Center (APA)
 - Analyzing applications and exploit codes
 - Member of Incident Response Team
- Mahab Ghodss Consulting Engineering Company, Security Consultant
 - Providing Software Security Solutions
- Mahan Airline, Information Security Manager
 - Providing and implementing security solutions in different contexts (Data center, applications, etc)
 - Identity Management Server (testing different technologies: WSO2, JBOSS, Oracle, freeIPA) to handle AuthN and AuthZ and SSO procedures
- Statistical Center of Iran, Programmer and System Analyst
- Director of IT major for preparing experimental exams for national master entrance examinations for Iranian universities.
- Some software development projects:
 - Design and implementation of interest-free loan funds,
 - Design and development of region 3 safety community website
 - Web based monitoring of rack device

Selected Honors, Awards and Distinctions

- Outstanding student in B.Sc. education in computer science

- Outstanding student in M.Sc. education in Information Technology/Information Security
- Ranked 34th among more than 2000 participants in the national university entrance exam for M.Sc. degree
- Admitted for pursuing graduate studies at Tehran University in fall 2009 without entrance examinations (Only granted to top 4 students)
- Free education in government supported university for B.Sc. and M.Sc. degrees

Research Publications

- Tavizi, Tina, Mehdi Shajari, and Peyman Dodangeh. "A Usage Control Based Architecture for Cloud Environments." *2012 IEEE 26th International Parallel and Distributed Processing Symposium Workshops & PhD Forum (IPDPSW)*.
- Tavizi, Tina, Minoo Sadat Mirpurian, and Hossein Gharaee. "A comprehensive network intrusion detection and prevention system architecture." *2012 IEEE Sixth International Symposium on Telecommunications (IST)*.
- Karbaschian, Amir Reza, Minoo Sadat Mirpurian, and Tina Tavizi. "A comprehensive design for decision engine in network intrusion detection and prevention system." *2012 IEEE Sixth International Symposium on Telecommunications (IST)*.

Workshops

- *Testing Network Intrusion Detection and Prevention Systems*, in Second National Festival of Information and Communications Technology (ICT), Tehran, Iran.

Teaching Assistantship

- Secure Computer Systems, fall 2014, Amirkabir University of Technology, Instructor: Dr. Mehdi Shajari.
- Secure Computer Systems, fall 2013, Amirkabir University of Technology, Instructor: Dr. Mehdi Shajari.
- Secure Computer Systems, fall 2012, Amirkabir University of Technology, Instructor: Dr. Mehdi Shajari.
- Secure Computer Systems, fall 2011, Amirkabir University of Technology, Instructor: Dr. Mehdi Shajari.
- E-Payment Systems, fall 2010, Amirkabir University of Technology, Instructor: Dr. Mehdi Shajari.
- Numerical Analysis, spring 2008, University of Tehran, Instructor: Dr. Manouchehr Parsaie.
- Operating Systems, fall 2007, University of Tehran, Instructor: Ebrahim Naghibzadeh mashayekh

Teaching

- Computer Architecture, fall and spring 2011, Oxin Institute.
- Security+, summer 2014, Applied Information Development Institute (AIDI).
- Secure Software Development, 2013-2015, APA, Mahan Airlines, AIDI.

Skills

- Encryption algorithms and analysis of them,
- Email system architectures and implementing secure email solutions,
- Security protocols and attacks against them,
- Different kinds of web vulnerabilities and attacks and testing and defending methods against them,
- Penetration testing in different contexts (tools, frameworks and concepts),
 - Kali and backtrack Linux distributions,
 - BurpSuite, Acunetix, Retina, Nessus, Nmap, Metasploit, Wireshark, etc.
- System and network forensics tools and techniques (CHFI Course concepts),
- Fuzzing methods and developing fuzzers,
- Secure Software Development (Microsoft SDL) and Secure Coding in java and c#,
- IDS Concepts, Configuring IDS and building test infrastructure with both commercial and open source tools,
- Testing network security components: IDS, IPS, WAF, Firewall,
- Designing SOC building blocks (IDS, Correlation engine, Response engine, ...),
- SELinux,
- Socket Programming
- Databases and its related concepts (MSSQL, MySQL),
- Information Security Management System (Implementing ISO 27001),
- Authentication, Authorization and SSO models and mechanisms,
- PKI,
- Network Security.

Other Computer Skills

- **Programming Languages:** Java, C#, shell scripting, assembly, C, C++.
- **Microsoft Project Server (Project professional).**
- **Systems:** Unix-Based Systems, Windows.
- **Microsoft Office.**

MSC Courses

- Secure Computer Systems

- Applied Cryptography
- Information Security Principles
- Formal Models and Information Security
- Security Protocols
- Network Security
- E-Payment Systems
- Database Security

PhD Courses

- Game Theory
- Software Vulnerability Analysis
- Distributed Computing
- Advanced Computer Networks
- Intrusion Detection Systems
- Stochastic Processes

Specialized Training Courses

- VMWare VCP 5.0, Iran's Telecommunication Research Center (ITRC).
- Advanced Penetration Testing, Academic Protection and Awareness Professional Center (APA)
- Computer Hacking Forensic Investigator (CHFI) (preliminary and advanced), Academic Protection and Awareness Professional Center (APA).
- Object Oriented Analysis and Design (OOAD), Statistical Center of Iran (SCI).
- Principles of Statistical Databases, Statistical Institute for Asia and the Pacific.
- 2 day Workshop on security of network management softwares, Iran's Telecommunication Research Center (ITRC).
- 2 day Workshop on Cloud Computing, Amirkabir University of Technology (AUT).

References

- Assistant Professor Mehdi Shajari
Department of Computer Engineering & Information Technology,
Amirkabir University of Technology
Url: <http://www.aut.ac.ir/official/main.asp?uid=mshajari>
Email: mshajari@aut.ac.ir
Phone: +98 21 64542708
- Behzad Sadeghi

Advisor to the Executive/Managing Director,
Mahan Airline
Email: behzad.sadeghi@yahoo.com
Phone: +98 21 48382752

- Associate Professor Babak Sadeghian
Department of Computer Engineering & Information Technology,
Amirkabir University of Technology
Url: <http://www.aut.ac.ir/official/main.asp?uid=basadegh>
Email: basadegh@aut.ac.ir
Phone: +98 21 64542739
- Hossein Gharaee Gorgani
ICT Security Faculty,
Iran's Telecommunication Research Center
Email: gharaee@itrc.ac.ir
Phone: +98 21 84977043